



PTO/SB/08A (10-01)

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Substitute Form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 3

**Complete if Known**

Application Number	10/797,155
Filing Date	March 11, 2004
First Named Inventor	Joe Ben Bevirt
Art Unit	2631 3743 3711
Examiner Name	Unassigned Farnstrom
Attorney Docket Number	IMMR081/02US

**U.S. PATENT DOCUMENTS**

Examiner	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
KF		6,422,941		7/23/2002	Thomer et al.	
		6,160,489		12/12/2000	Perry et al.	
		6,111,577		8/29/2000	Zilles et al.	
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		2,972,140		2/14/1961	Hirsch	

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
KF		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
		JP	H7-24147		1/27/1995	Sega Corporation	
		JP	H5-192449		8/3/1993	Taito Corporation	

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**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
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Sheet **2** of **3****Complete if Known**

Application Number	10/797,155
Filing Date	March 11, 2004
First Named Inventor	Joe Ben Bevirt
Art Unit	2631 374
Examiner Name	Unassigned Fernstrom
Attorney Docket Number	IMMR081/02US

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
IC		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," <i>PRESENCE</i> , 4(4):387-402, Harvard Univ., 1995.
		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1</i> , ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 <sup>nd</sup> Edition; McGraw-Hill, ISBN 0-07-050187-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at <a href="http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html">http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html</a> , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

Examiner  
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/797,155		
		Filing Date	March 11, 2004		
		First Named Inventor	Joe Ben Bevirt		
		Art Unit	2631-3711		
		Examiner Name	Unassigned Forster		
Sheet	3	of	3	Attorney Docket Number	IMMR081/02US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
KE		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
I		SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994
↓		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.

Examiner Signature	<i>KE</i>	Date Considered	12/19/05
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<i>Complete if Known</i>			
		Application Number	<del>Unassigned</del> 10/797/155		
		Filing Date	Herewith 3/11/04		
		First Named Inventor	Joe Ben BEVIRT		
		Group Art Unit	<del>Unassigned</del> 3711		
Examiner Name	<del>Unassigned</del> Ferguson				
Sheet	1	of	8	Attorney Docket Number	IMMR-081/02US

PTO/SB/08A (08-00)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code <sup>2</sup> (if known)		
ICF	A1	6,323,837		Rosenberg	11/27/2001
	A2	6,246,390		Rosenberg	06/12/2001
	A3	6,193,519		Eggert et al.	02/2001
	A4	6,104,382		Martin et al.	08/15/2000
	A5	6,024,576		Bevirt et al.	02/2000
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	A7	5,828,197		Martin et al.	10/27/1998
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	A9	5,816,105		Adelstein	10/06/1998
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	A35	5,587,937		Massie et al.	12/24/1996
	A36	5,576,727		Rosenberg et al.	11/19/1996
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	A39	5,547,382		Yamasaki et al.	08/20/1996
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<sup>1</sup> Unique citation designation number.

<sup>2</sup> See attached Kinds of U.S. Patent Documents.

Examiner Signature	ICF Felt	Date Considered	12/19/05
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<i>Complete if Known</i>		
			Application Number	Unassigned 10/797,155	
			Filing Date	Herewith 3/11/04	
			First Named Inventor	JocBen BEVIRT	
			Group Art Unit	Unassigned 3711	
			Examiner Name	Unassigned Fernston	
Sheet	2	of	8	Attorney Docket Number	IMMR-081/02US

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105	A45	5,459,382		Jacobus et al.	10/17/1995
	A46	5,451,924		Massimino et al.	09/19/1995
	A47	5,445,166		Taylor	08/29/1995
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	A50	5,429,140		Burdea et al.	07/04/1995
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	A57	5,396,267		Bouton	03/07/1995
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	A95	5,050,608		Watanabe et al.	09/24/1991
✓	A96	5,044,956		Behensky et al.	09/03/1991

Examiner Signature	<i>Kat Felt</i>	Date Considered	12/19/05
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			Application Number	<del>Unassigned</del> 10/797/155	
			Filing Date	<del>Herewith</del> 3/11/84	
			First Named Inventor	Joe Ben BEVIRT	
			Group Art Unit	<del>Unassigned</del> 3711	
			Examiner Name	<del>Unassigned</del> Ferguson	
Sheet	3	of	8	Attorney Docket Number	IMMR-081/02US

U.S. PATENT DOCUMENTS					
✓	A97	5,040,306		McMurtry et al.	08/20/1991
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	A102	5,007,300		Siva	04/16/1991
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	A148	3,919,691		Noll	11/11/1975

Examiner Signature	<i>[Signature]</i>	Date Considered	12/19/85
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			Filing Date	Herewith 3/11/64	
			First Named Inventor	JocBen BEVIRT	
			Group Art Unit	Unassigned 3711	
			Examiner Name	Unassigned Fenton	
Sheet	4	of	8	Attorney Docket Number	IMMR-081/02US

U.S. PATENT DOCUMENTS					
10F	A149	3,911,416		Feder	10/07/1975
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	A156	3,517,446		Corlyon et al.	06/30/1970
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✓	A161	2,906,179		Bower	09/29/1959

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T <sup>4</sup>
		Office <sup>1</sup>	Number <sup>2</sup>	Kind Code <sup>3</sup> (if known)			
10F	B1		0 349 086	A1	Stork Kwant B.V.	01/03/1990	
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	B5		WO95/10080			04/13/1995	
	B6		WO95/20787			08/03/1995	
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	B13		WO96/39944			12/19/1996	
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			Group Art Unit	<del>Unassigned</del> 3711	
			Examiner Name	<del>Unassigned</del> Forstrom	
Sheet	5	of	8	Attorney Docket Number	IMMR-081/02US

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
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		First Named Inventor	Joe Ben BEVIRT
		Group Art Unit	Unassigned 3711
		Examiner Name	Unassigned F. J. S. J. S.
Sheet 6 of 8	Attorney Docket Number	UMMR-081/02US	

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Examiner Name	Unassigned Ferstner					
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